### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022460 Address: 333 Burma Road **Date Inspected:** 12-Dec-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Oiu Wen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

#### **SEGMENT 13AW**

Welding by SMAW process of weld joint SEG3013C-135 of segment 13AW. Welder is identified as 070432. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-P-2211-B-U2a-FCM-1.

Welding by SMAW process of weld joint SEG3013E-219 of segment 13AW. Welder is identified as 037780. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-P-2211-B-U2a-FCM-1.

Welding by FCAW process of weld joint SEG3013AU-079, 080 joining stiffener X4484C to X4468A at Panel Point (PP) 119 of segment 13AW. Welder is identified as 201215. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

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Welding by SMAW process of weld joint SEG3013Y-309, 310 of segment 13AW. Welder is identified as 066439. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-T-2132-ESAB.

Welding by SMAW process of weld joint SEG3013C-087, 094 at Panel Point (PP) 119-1500 of segment 13AW. Welder is identified as 202122. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

Welding by SMAW process of weld joint SEG3013E-152, 157 at Panel Point (PP) 119-1500 of segment 13AW. Welder is identified as 047866. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

Welding by SMAW process of weld joint SEG3013Y-305, 306 of segment 13AW. Welder is identified as 066439. ZPMC QC is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS-B-T-2132-ESAB.

During random in process inspection this QA inspector observed the damaged bevel faces and excessive root gap between two floor beam flanges on the top of longitudinal diaphragm at Panel Point (PP) 119-1500. The weld number is identified as SEG3013L-022. The floor beams are identified as FB3185A and FB3186A at panel point (PP) 119-1500 of segment 13AW. The damaged bevel face was observed on the flange of Floor Beam (FB) 3186A. This issue has been discussed with ZPMC CWI Mr. Qiu Wen. ZPMC CWI Mr. Qiu Wen informed this QA that ZPMC will make welding repair report (WRR) for buttering on the bevel face and reduce the excessive root gap and smooth bevel face. Attached photographs provide additional details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### Comments

# WELDING INSPECTION REPORT

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer